electricity networks association

T +64 4 471 1335

Level 5, Legal House
101 Lambton Quay
Wellington 6011

PO Box 1017
Wellington 6140
New Zealand

23 August 2019

Dane Gunnell (Manager, Price-quality Regulation)
Commerce Commission
PO Box 2351
Wellington 6140

By email to regulation.branch@comcom.govt.nz

Dear Dane

Follow-up comments on quality standards and incentives

Thank you for holding the workshop on 16 August on aspects of the quality standards and incentives that may apply to EDBs in DPP3. We hope that you found the discussion useful in developing your analysis.

We thought it would be useful to follow-up on the discussions with some further thoughts.

Identification of major events

Firstly, we note the significant effort the Commission has made on testing different approaches to normalisation. We think it has been valuable in enhancing the discussion on how to address concerns raised by the ENA about the impact of evaluating reliability performance on a calendar day basis.

While we appreciate that the Commission has sought to develop an approach that makes sense in the context of the data supplied by EDBs, we think it is most important to recognise that the selected approach needs to be consistent with EDBs' operating environments. There is a real risk that in compressing the duration impact of an interruption into the half-hour period when the interruption commences, the Commission loses the visibility of the operational impact on a business of a major event.

In our view, the approach to identifying and normalising a major event should as far as possible seek to differentiate times when an EDB is operating under stress, where it will take longer to respond to an outage, and a normal operating environment when resources are available to respond at BAU performance levels to outage events.

A major event (e.g., significant wind or snowstorm) obviously has immediate consequences in terms of interrupting supplies on both HV and LV networks. An EDB's immediate priority is to restore power on the HV networks as this provides the best opportunity to restore power to the most amount of people as quickly as possible. Control room operations prioritise restoration efforts on HV first before assigning resources to restorations on the LV network (which is unmeasured for SAIDI/SAIFI reporting purposes).

In major events, once it is safe to begin restoration, it is an "all-hands-on-deck" scenario where resources are deployed to make repairs to the network to restore power. Often this can involve temporary repairs, pending permanent replacement of broken assets. EDBs must manage worker fatigue issues, which will involve mandatory periods of rest for employees who may work extended hours on the initial network restorations.

It is essential to recognise that once the network has been restored, it can be up to a few days before normal operating patterns are restored and there may be a long tail of LV faults and other damage that has to be addressed before being back to a normal operating environment. This means that if there are further unplanned outages that occur in the immediate aftermath of a major event, then response capability may be impaired as there are fewer employees available to undertake repairs given mandatory stand-downs for employees to ensure their welfare.

As we understand the IEEE standard, it seeks to identify and treat separately "major event days" from "normal days" to address the very different questions of how well the business is performing on normal days, versus how well they perform during a major event. From that perspective, the identification and normalisation of a major event needs to consider not just the timeframes in which outages commence, but the timeframes that a business is operating in an impaired state, such that outage responsiveness can be abnormally impacted.

ENA's suggestion is that normalising to a 24-hour rolling period is far more representative of the operational reality than the proposed three-hour period. While a 24-hour rolling period will normalise interruptions that are triggered outside of the major event, this is entirely appropriate when businesses are operating in an impaired state.

In addition to the operational considerations which suggest a longer timeframe than three hours to identify and normalise a major event, we also have concerns about the incentives that would be created by adopting a short, three-hour window. In a major wind or snowstorm, there will be a period where it is not safe to send crews out to commence damage assessments and repairs.

In the meantime, SCADA information and customer notifications will be used by network operators to identify restoration priorities. Restoration priorities will generally be for sensitive load customers to be restored first, followed by repairs to areas of the network with the greatest numbers of customers affected. However, the incentive created by a three-hour window for the identification of an event would be to disrupt this normal prioritisation process and focus on any new interruptions that fall outside of the expected normalisation period. This would be contrary to consumers'

interests as customers affected by the initial outage face longer restoration timeframes. Again, we think this suggests that a longer normalisation period of 24 hours is appropriate so that restoration priorities are not perversely impacted by the timeframe for identifying interruptions that will be subject to normalisation.

Normalisation of a major event

Once the identification of a major event has been identified, it is then necessary to determine what to normalise with. The Commission has preferred to normalise with the boundary value, which we understand is to discourage EDBs from letting outages run-on to become major events. We think that there are very real practical and moral constraints on such behaviour, which we have previously submitted on.

ENA continues to advocate that major events should be addressed entirely separately to performance during normal conditions, with substitution of either zero or the average value for major events. EDBs that have been subject to Commission investigations have reported substantial business disruption in responding to information requests and onsite assessments.

We accept that this is an unavoidable consequence of a breach. However, with the proposal to move to annual assessments, EDBs will become more subject to quality standard breaches when experiencing years of higher frequency of major events than the assumed 2.3 or 2.5 major events per annum. An examination of the historical data shows that most EDBs will experience years where they have six major events and sometimes more. Accordingly, for an EDB to consistently meet the compliance standard, because the normalisation approach does not remove the effect of a major event, an EDB must base their operational planning on achieving unplanned SAIDI/SAIFI performance on normal days equal to the SAIDI/SAIFI limit less six times the respective boundary value.

Over time this is likely to drive improvements in reliability performance, since not every year will have six major events. But the improvement in reliability will likely come at high cost to consumers, especially as there are diminishing returns to investment in quality improvements (i.e., it becomes more costly to achieve quality improvements over time as low-cost opportunities are exploited first).

In summary, the consequence of substitution of the boundary value for major events, in combination with the growing understanding of the business disruption consequence of an investigation, holds the potential to drive excessive risk aversion in EDBs, which may not drive optimal cost-quality trade-offs. We strongly urge the Commission to reconsider substitution of the boundary value on major event days or consider alternative means of addressing the perverse consequences of the frequency of major events exceeding the assumed annual allowance.

Notified planned events

We do not have anything to add to the discussion on Friday, but reiterate our concern that the potential additional complexity of the “planned notified” measure is unwarranted, appears disproportionate to the scale of complaints raised by consumers and, as expressed in the draft decision, is misaligned with good operating practices and may drive perverse incentives. There are

many good and justifiable reasons (adverse weather, safety, customer request) why an outage may not go ahead, so penalising EDBs for outages that do not proceed in the nominated timeframe risks just creating another cost on EDBs for little obvious consumer benefit.

We formed an impression that the Commission is most concerned about the disruption to commercial customers from planned outages, but that EDBs have good practices for managing outage scheduling to minimise disruption to commercial customers (including scheduling work out-of-work hours or on weekends). The proposed notified planned outage proposal is a blunt and poorly targeted measure to address this concern.

We reiterate our view that there should not be a limit on the duration of a notified planned outage, as this is likely to interfere with sound operational planning. Customers are likely to prefer one long outage than several shorter outages.

Extreme event standard

We do not have anything further to add to the discussion on identification of extreme events, but simply reiterate our key points which are:

1. We understand that the Commission wants to have the opportunity to assess whether extreme events caused by equipment failure and human error are a sanctionable concern, as it currently considers it does not have sufficient ability to address poor performance causing large one-off incidents that are within the control of EDBs;

2. From EDBs' perspective, however, being held to account on a large one-off incident when it is not known what standard is expected, particularly when large sanctions are possible, is likely to create a risk of undue risk aversion in EDBs. Such risk aversion may not be in the long-term interests of consumers if it results in over-investment to avoid the risk of such events.

   We note that what is meant by the term "good industry practice" is being defined by the Commission's engineering consultants and could be subject to reasonable disagreement among engineers. We submit it is unreasonable to impose a standard on EDBs that is not well-defined or well sign-posted: EDBs may require some time to adjust to a performance standard once it has been defined;

3. ENA proposes that the Commission consider a more evidence-based approach to developing an extreme event standard, based on enhanced information disclosure in DPP3 and issuance of more objective criteria against which an extreme event would be assessed. Implementation of a standard could occur in DPP4 if there is evidence it is required, based on the findings that emerge during DPP3.

   At a minimum, ENA requests that the Commission provide clear criteria against which a breach would be judged: given the potential for financial penalties and compensation, it is essential that EDBs know what the Commission requires. "Good industry practice" is not an adequately described sufficient criterion on which EDBs can determine the standard of performance they need to meet. Finally, we also note that the Electricity Industry Act provides powers for the

Minister to initiate reviews, which could be exercised in the event of extreme outage events resulting from equipment failures and human errors.

Closing comment

We hope that you find these additional comments useful in expanding on or clarifying ENA's position. Please feel free to contact me if you have any further questions.

Kind regards,

Ryno Verster
On behalf of ENA Quality of Supply Working Group